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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/837,788      | 04/18/2001  | Rendian Zhao         | 14512               | 9956             |

7590 02/13/2003  
Scully, Scott, Murphy & Presser  
400 Garden City Plaza  
Garden City, NY 11530

EXAMINER

STRICKLAND, JONAS N

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1754

DATE MAILED: 02/13/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary****Application No.**

09/837,788

**Applicant(s)**

ZHAO ET AL.

**Examiner**

Jonas N Strickland

**Art Unit**

1754

~ The MAILING DATE of this communication appears on the cover sheet with the correspondence address -  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: \_\_\_\_\_

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**DETAILED ACTION*****Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claims 11 and 14 recite the limitation "said inner screen" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by De Bonneville et al. (US Patent 5,034,117).

De Bonneville et al. discloses a process for regenerating a catalyst for the production of aromatic hydrocarbons or for reforming. The regeneration process is characterized in that the exhausted catalyst successively meets a first radial moving bed combustion zone (101), a second radial moving bed combustion zone (105), an axial oxychlorination bed zone (107), and an axial calcination moving bed (116) (see abstract). De Bonneville et al. continues to disclose wherein the regeneration gas is

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recirculated through the first and second combustion zones (sol. 5, lines 3-35).

Therefore, the first coke-burning zone is contacted with the regeneration gas from the second coke-burning zone. De Bonneville et al. continues to disclose wherein the catalyst circulates under the effect of gravity (col. 4, lines 4-6). De Bonneville et al. also discloses a drying zone with respect to claim 2, (col. 6, line 38). With respect to claims 3 and 4, it would have been anticipated for the regeneration gas to move in a centrifugal or centripetal manner, because De Bonneville et al. discloses wherein the coke-burning combustion zones have a radial moving bed. With respect to claim 5, De Bonneville et al. discloses wherein the pressure may be operated a low pressures, which include being lower than 10 bars and being in particular between 3 and 8 bars or even lower (col. 3, lines 1-4). With respect to claim 6, the water content does not contain more than 100 ppm (col. 6, line 42). With respect to claim 7, the oxygen volume is from 0.01-1.0 vol.% (col. 6, lines 15-17). With respect to claims 8 and 9, the first reactor is operated at a temperature of 350-450°C (col. 6, line 2) and the second zone may be operated at a temperature of 60-80°C higher than the first zone (col. 6, lines 45-50).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boret et al. (US Patent 4,133,743) ; Ab der Halden et al. (US Patent 4,148,749) ; Huin et al. (US Patent 4,218,338) ; Fung et al. (US Patent 5,776,849) ; Capelle et al. (US Patent 6,048,814) ; Brunet et al. (US Patent 6,103,652) ; Capelle et al. (US Patent 6,133,183) ; Brunet et al. (US Patent 6,147,022).

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N Strickland whose telephone number is 703-306-5692. The examiner can normally be reached on M-TH. 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0661.

Jonas N. Strickland  
February 10, 2003

WAYNE A. LANGE  
PRIMARY EXAMINER